

**ASSOCIATED**

## MODEL 6127

# OPERATORS MANUAL

### INTRODUCTION

This model is a wheel around starter / charger designed to start and charge 12-volt vehicles. It has a battery compartment to house the starting battery and a fully automatic charger to recharge the starting battery quickly, or can be used as a charger to charge other 12-volt batteries. Because of the internal battery you do not need to be near an AC power source when starting vehicles as you would with a battery charger.

### BATTERY SAFETY

When installing the battery in the unit, starting cars, or charging other batteries, you should be aware of and alert to the hazards of working near the lead-acid battery.

The electrolyte in automotive starting batteries is sulfuric acid. Wear eye protection and clothing protection when near a battery. Avoid touching eyes when working near battery. If battery acid contacts skin or clothing, wash immediately with soap and water.

**IF ACID ENTERS EYE, IMMEDIATELY FLOOD EYE WITH RUNNING COLD WATER FOR AT LEAST 10 MINUTES AND GET MEDICAL ATTENTION IMMEDIATELY. NEVER USE EYE DROPS OR OTHER MEDICATION BEFORE SEEING A DOCTOR.**

Neutralize spilled acid with a solution of baking soda (1 pound per gallon of cold water) or household ammonia (1 pint per gallon of cold water).

While batteries are being charged, an explosive gas mixture forms inside each cell. Some of this gas escapes through the vent holes in the fill caps and may remain around the battery in an explosive condition. Sparks or flames igniting this gas mixture will burn back through the vent hole and explode inside the battery cell. Such an explosion is dangerous not only because of its own force but also because of the battery acid which it could spray on anything in the vicinity.

### TO PREVENT EXPLOSION

Be sure that the area around the battery is well ventilated. Do not smoke, cause sparks, or have an open flame near any battery that has recently been charged or has been used to start a vehicle.

Do not break live electrical circuits at the terminals of batteries. A spark may occur at that point causing an explosion. Always disconnect the clamp attached to the frame of the vehicle first.

**DO NOT CHARGE A FROZEN BATTERY, TRAPPED GASES MAY CAUSE AN EXPLOSION.**

**DO NOT OPERATE THE UNIT WITHOUT A BATTERY, THE INTERNAL BATTERY TERMINALS MAY SHORT AND CAUSE ARCING.**

### CHOOSING A BATTERY

When choosing a battery for your unit, several factors must be considered.

1. **PHYSICAL SIZE:** The unit will accommodate any of several group sizes of batteries. The maximum dimensions that a battery may have and still fit are: Length: = 10 1/4", Width: = 7 1/4", Height: = 9 1/2".

The most common battery that will fit these dimensions is a group 24 size battery. A battery of this size will be readily available from most battery retailers or wholesalers. Your battery salesman can help you pick a battery of this size or from another group size if you desire.

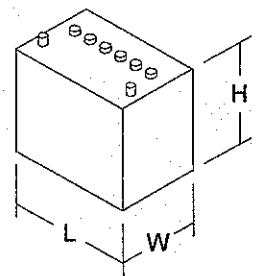
2. **ELECTRICAL SIZE:** In most cases, the primary function of the battery is to provide power to crank an engine during starting. This requirement involves a large discharge in amperes over a short span of time. The COLD CRANKING AMPS rating of a battery is defined as: The discharged load in amperes which a new, fully charged battery at 0°F (-17.8°C) can deliver for 30 seconds and maintain a voltage of 1.2 volts per cell or higher.

If you are going to use your unit as a 12-volt power supply to run trouble lights or other equipment, the RESERVE CAPACITY of a battery will be your principle concern in choosing a battery. Reserve Capacity is defined as: The number of minutes a new fully charged battery at 80°F (26.7°C) can be discharged at 25 amperes and maintain a voltage of 1.75 volts per cell or higher.

The exact size of the battery you choose will depend upon the type of use the unit is subjected to. Factors that should be considered when picking the battery include:

1. Number of cars per day to be started.
2. Size of engines to be started.
3. Condition of engines to be started.
4. Ambient temperatures that unit will be used in. (The colder the temperature, the larger the battery required.)
5. Amount of time between starts.

The minimum size battery recommended is 500 Cold Cranking Amps, 100 minute Reserve Capacity. For maximum performance, install the highest rated battery available.



3. **TYPE OF BATTERY:** If you are going to use your unit as a DC power supply for tools, etc., you should install a "Deep Cycle" or "High Cycle" type battery. These batteries have a high "Reserve Capacity" rating and are designed so that repeated full discharges will not harm their performance.
4. **TERMINAL POSTS:** The unit is designed to accommodate either "Top Post" batteries or "Side Terminal" batteries.

### STARTING INSTRUCTIONS

Connect and disconnect DC output clips only after removing AC cord from electric outlet. Never allow clips to touch each other.

Follow these instructions for maximum safety:

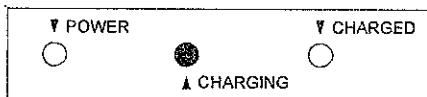
- a) Position AC and DC cords to reduce risk of damage by hood, door, or moving engine parts.
- b) Stay clear of fan blades, belts, pulleys, and other parts that can cause injury to person(s).
- c) Check polarity of battery posts. The Positive (POS, P, +) post usually has a larger diameter than the Negative (NEG, N, -) post.
- d) Determine which post of battery is grounded (connected) to the chassis. If the negative post is grounded to the chassis (as in most vehicles) see Item (e). If the positive post is grounded to the vehicle chassis, see Item (f).
- e) For negative grounded vehicle, connect positive (red) clip to the positive, ungrounded post of battery. Touch probe of Safety Lite to other battery post. If lite comes on, reverse the first connection and repeat test. When lite does not come on, connect negative clip to vehicle chassis or engine block away from battery. Do not connect clip to carburetor, fuel lines, or sheet metal body parts. Connect to a heavy gauge metal part of frame or engine block.
- f) For positive grounded vehicle, connect positive (red) clip to vehicle chassis or engine block away from battery. Do not connect clip to carburetor, fuel lines, or sheet metal body parts. Connect to a heavy gauge metal part of frame or engine block. Touch probe of Safety Lite to negative battery post. When you get no light indication, disconnect positive clip from engine frame, connect negative clip to negative battery post, and reconnect positive clip to vehicle chassis.

After the correct clip connections have been made, start the stalled engine as soon as possible. Leaving the unit connected to the dead battery may discharge the battery.

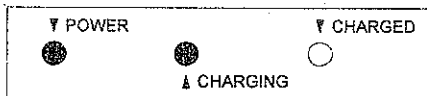
When disconnecting clips, remove clip from vehicle chassis and then remove clip from battery terminal in that order.

### RECHARGING THE BATTERY

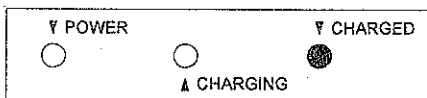
The battery charger in this unit is equipped with a solid-state control circuit, which will automatically bring the battery to a full state of charge and then shut off. The unit may be left plugged into a power socket after the battery is charged without fear of overcharging the battery.



After the battery is installed and before the power cord is plugged in, the light pattern indicates the battery is installed properly and the unit is ready to use. If the light is not on, the battery may be installed in reverse polarity or it is so dead it can not turn the light on. Recharge the battery every 10-14 days if the unit is stored without the power cord plugged in.



Indicates the unit is plugged into a power socket and the battery is being charged.\*



Indicates that the unit is plugged into a power socket and the battery is charged.\*

\* It is normal for a battery to slowly fluctuate between these two states after charging. Rapid fluctuation may mean the battery is nearing full charge or the battery is defective.

### USING THE UNIT TO CHARGE AN EXTERNAL BATTERY

When the unit is being used to charge an external battery, it is being used as a "Parallel Charger". Most of the charger's output goes to charge the most discharged battery until both batteries are equally charged, and then both batteries charge up together. To charge external batteries, it is important to have the internal battery fully charged.

A battery installed in a boat must be removed and charged on shore. To charge it on board requires equipment specially designed for marine use.

Take the following steps to prepare the external battery for charging.

1. Be sure battery posts are clean.
2. If the battery has filler caps, remove filler caps and check electrolyte level. Level should be about 1/4" above top of plates.
3. If battery does not have filler caps, check manufacturer's instructions for checking water level.
4. Replace filler caps.
5. Do not charge a frozen battery. Trapped gases in battery may cause it to explode.
6. Do not set battery on top of charger.

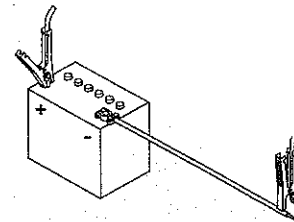
### DC CONNECTION PRECAUTIONS

Connect and disconnect DC output clips only after removing AC cord from electric outlet. Never allow clips to touch each other.

When battery to be charged is installed in a vehicle, connect clips to battery as outlined in section "STARTING INSTRUCTIONS".

Follow these steps when battery is outside vehicle:

1. Check polarity of battery post. Positive (POS, P, +) battery post usually has a larger diameter than Negative (NEG, N, -) post.
2. Attach at least a 24 inch-long, 6 gauge insulated battery cable to negative battery post.
3. Connect Positive (Red) charger clip to positive post of battery.
4. Touch probe of Safety Lite to far end of cable attached to negative post. If lite comes on, the positive clamp and cable are on the incorrect posts and should be switched. Repeat test, if lite does not come on, position yourself and free end of cable as far away from battery as possible, then connect Negative (Black) charger clip to free end of cable. When disconnecting charger, disconnect AC cord before disconnecting the battery cables. Always disconnect clips in reverse sequence of connecting procedure and break first connection as far away from battery as practical.



### STORING AND TRANSPORTING

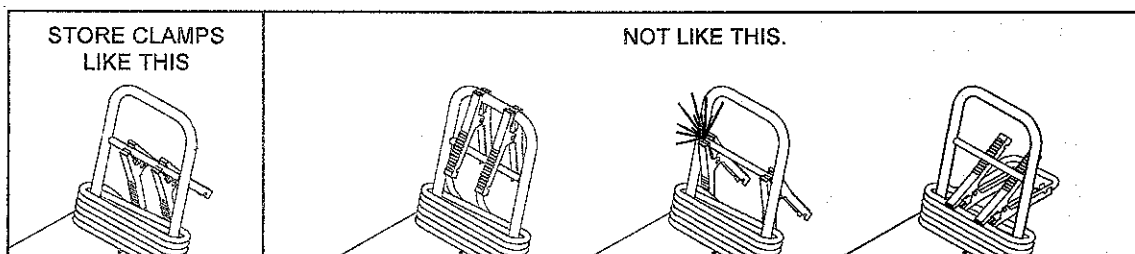
Always store and transport the unit in an upright position. If the unit is laid on its back, electrolyte will lead out of the battery and cause serious damage. THE TILT CREATED BY WHEELING THE UNIT AROUND WITH THE HANDLE WILL NOT CAUSE ELECTROLYTE TO LEAK FROM THE BATTERY IF IT HAS NOT BEEN OVER FILLED.

The unit should always be stored indoors in a warm place. A battery at 0°F has only 40% the starting capacity of a battery stored at 80°F.

ALWAYS STORE THE OUTPUT CLIPS ON THE INSULATED STORAGE BAR. THE CLAMPS SHOULD NOT TOUCH THE METAL HANDLE. NEVER ATTACH THE CLIPS ON THE HANDLE. NEVER LET THE CABLES DANGLE AND TOUCH THE CABINET. NEVER ATTACH THE CLIPS TO THE CABLE INSULATION.

ATTACHING CLIPS TO METAL HANDLE, ATTACHING CLIPS TOGETHER, OR SHORTING CLIPS IN ANY MANNER WILL DAMAGE THE UNIT AND MAY CAUSE PERSONAL INJURY.

If clamps are accidentally attached to the metal handle or short circuited in another manner immediately disconnect on clamp.



### MAINTENANCE

To obtain maximum, reliable safe service from the unit, it is important that routine maintenance be performed on the unit.

#### **ONCE A MONTH:**

Inspect output clips. If jaws are worn or insulation burned, clips should be repaired or replaced.

Check AC cord for damage. If insulation is cracked or broken, cord should be replaced.

Touch probe of Safety Lite to jaw of Positive clip. If battery is fully charged and lite does not come on, Safety Lite should be replaced.

Battery liquid level should be checked in each cell, if possible. Water should be added to any cell where liquid is low. Do not over fill. Check battery case for cracks and leaks.

Check that all battery hold down straps are tight.

Check that screws, which hold cables to battery terminals are tight.

#### **ONCE EVERY FOUR MONTHS:**

Clean the top of the battery, if necessary. This can be done using water and a clean cloth. The addition of baking soda to the water will make the job easier. If baking soda is used, be sure that none of it gets into cells of the battery.

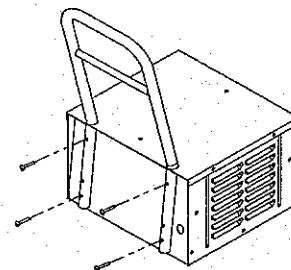
Clean all corrosion from the battery posts and from the inside of the battery terminals.

After cleaning, a thin film of motor oil, axle grease, or commercially available corrosion preventative wiped onto battery posts and terminals will help reduce corrosion.

Interior of the battery box should be cleaned by wiping with a rag soaked in baking sod and water.

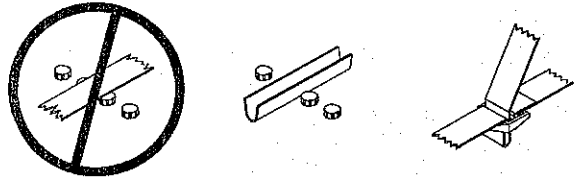
### ASSEMBLY AND BATTERY INSTALLATION INSTRUCTIONS

**Handle Installation:** Attach handle to rear of charging unit with four #10 oval head sheet metal screws provided. Handle should go through holes in lid as shown. Attach output clips to insulated storage bar as shown in "STORAGE INSTRUCTIONS".



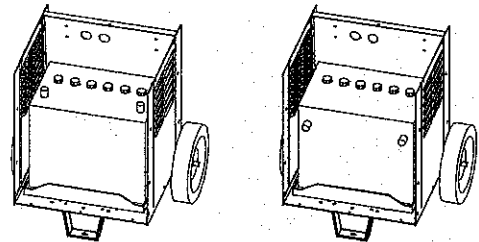
**Battery Installation:**

a) Set battery on tray in battery compartment as shown.  
POST OF BATTERY SHOULD ALWAYS BE TOWARD THE FRONT OF THE UNIT.



b) Tighten and secure the battery hold-down strap. If the strap goes over cell caps, the strap should be pulled down between the cell caps to allow for routine maintenance and to keep battery secure.

c) Battery Terminal Installation for Top Post batteries: Attach battery terminals to the battery as shown. The unit's positive battery terminal is the one with red tape on the cable. Be sure the battery posts are clean and in good condition. Battery terminals should not be installed so as to overlap the filler caps. Battery terminals should not be turned toward the side panels.



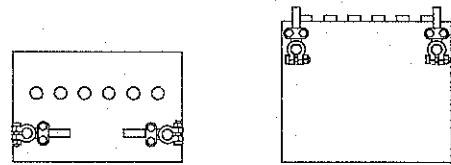
TOP POST

SIDE POST

d) Battery Terminal Installation for Side Terminal batteries: If your side terminal battery does not have posts, and has only threaded inserts, you will need to purchase a set of screw in adapters, available at auto parts stores.

Attach battery terminals to battery posts as shown. The unit's positive battery is the one that has red tape around the cable.

Be sure the battery posts are clean and in good condition before attaching the terminals to them. A thin film of motor oil or axle grease wiped onto the battery posts before attaching the cables will reduce corrosion.



TERMINAL INSTALLATION

e) Double check the polarity of your connections. The positive battery terminal (the one with red tape on the cables) should be attached to the positive post.

f) Install front panel on battery box.

g) Install charger on battery box.

h) The unit is now ready for use. If the battery you installed was discharged or in an unknown state of charge, you will want to charge it. Connect the AC cord to power supply.

**PARTS LIST**

Transformer.....	610515	Output Cables .....	605207
PCB / Heatsink Assembly.....	610617	Battery Tray and Strap .....	610593
Cabinet Hardware.....	610592		

**TROUBLESHOOTING THE UNIT**

No LED's lit on the control panel; check for proper polarity connections to the battery in the unit. Check for dirty terminals on the battery. Battery may be fully discharged. Recharge with another charger and re-install in the unit. (See Below)

"Power" LED only lit; Battery may be dead and the charger will not turn on. To check for this situation: 1) Attach a 12 volt manual charger to the red and black clips and turn both units on. This will trick the internal charger into turning on. 2) Attach the unit to a good 12 volt battery and plug the power cord into an outlet. Wait one minute, unplug power cord, detach from battery, and re-connect power cord. If charger does not turn, repeat the procedure.

"Charged" and "Charging" LED's turn on and off rapidly; Battery may be nearing full charge or battery may be defective.